
**Sensory analysis — General guidance for
the staff of a sensory evaluation
laboratory —**

Part 1:
Staff responsibilities

*Analyse sensorielle — Guide général à l'attention du personnel des
laboratoires d'analyse sensorielle —*

Partie 1: Responsabilités du personnel



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13300-1 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 12, *Sensory analysis*.

ISO 13300 consists of the following parts, under the general title *Sensory analysis — General guidance for the staff of a sensory evaluation laboratory*:

- *Part 1: Staff responsibilities*
- *Part 2: Recruitment and training of panel leaders*

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Sensory analysis — General guidance for the staff of a sensory evaluation laboratory —

Part 1: Staff responsibilities

1 Scope

This part of ISO 13300 provides guidance on staff functions in order to improve the organization of a sensory evaluation laboratory, to optimize the use of personnel, and to improve the efficiency of sensory tests.

It is applicable to any organization planning to establish a formal structure for sensory evaluation. The main aspects to be considered are

- the education, background and professional competence of staff members, and
- the responsibilities of staff members at three different functional levels: sensory manager; sensory analyst or panel leader; panel technician.

These guidelines are valid for all different types of sensory evaluation laboratories, in particular those in industry, in research and development organizations, in service organizations and in the field of official authorities concerned with product control. In principle, it can be assumed that the sensory evaluation laboratory can perform all types of sensory tests. This means analytical tests such as discrimination tests, descriptive analysis (sensory profile), as well as consumer tests (e.g. hedonic tests). The individual profile of sensory activities of an organization determines the boundaries and conditions to be considered for planning and implementing the sensory evaluation laboratory and its staff.

The application of this guidance by the organization is flexible and depends on the needs and possibilities within an organization. For example, personnel might not be available for three levels of staff function and, thus, the duties can be divided among staff accordingly. Also, in a staff of two persons the technical/scientific functions can be shared between a person handling the administrative/management functions and the individual handling the operational functions.

NOTE Elements that are common to all levels of staff, such as ability to maintain confidentiality, where needed, and motivation and enjoyment of the work are not described in this document.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5492, *Sensory analysis — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5492 and the following apply.

3.1 sensory staff
personnel who fulfil the major functions of a sensory analysis laboratory (administrative/management, scientific/technical and operational)

NOTE 1 The staff may be given titles (such as sensory manager, sensory analyst, panel leaders and panel technicians) but the functional level performed, however, is the primary consideration as various titles may be used (see 3.2 to 3.5 for examples).

NOTE 2 Sensory assessors are not included as staff in this document because their primary function is not related to conducting or managing tests. The role of assessors is described in other standards.

3.2 sensory manager
person with administrative and budgetary responsibility for the sensory evaluation laboratory within the top or middle management level of the organization with respect to the sensory evaluation programme

NOTE This person defines the training, technical, scientific and quality policies for the sensory organization.

3.3 sensory analyst
person who fulfils scientific professional functions, who may supervise one or more panel leaders, design and conduct sensory studies, and who analyses and interprets the resulting data

3.4 panel leader
person whose primary duties are to manage panel activities, and recruit, train and monitor the assessors

NOTE 1 This person may also design and conduct sensory tests, and analyse and interpret data.

NOTE 2 This person may be assisted by one or more panel technicians.

3.5 panel technician
person who fulfils the operational functions by assisting the panel leader or sensory analyst in performing sensory tests, including necessary preparation measures before the tests and activities after the tests (e.g. waste disposal)

4 Competencies and responsibilities

Tables 1 and 2 give summaries of staff responsibilities and competencies, respectively.

4.1 Administrative/Management (Sensory manager)

4.1.1 Education and position in the company

To be effective in an organization, the sensory manager should belong to middle or senior management of the company or organization, and should interface with other departments. A background in a product science (e.g. food science), psychology or other related sciences (e.g. chemist, technologist, engineer, biologist) is recommended. The individual should have good interpersonal and management skills and good written and verbal skills.

4.1.2 Competencies

With respect to the different functions, the necessary competencies are the following.

a) **Management competencies:**

- organizational and planning capabilities;
- administrative capabilities (budgeting, reporting, programme updating);
- knowledge of the business and the environment;
- knowledge of the ethics and the control of tests with human subjects;
- knowledge of health and safety requirements.

b) **Scientific and technical competencies:**

- product knowledge (development, formulation aspects);
- technical knowledge with respect to production and packaging;
- knowledge of laboratory systems, including computerized systems and software, if needed.

c) **Sensorial competencies:**

- theoretical knowledge in the field of sensory analysis;
- knowledge of the sensory methodology;
- knowledge of sensory data collection and analysis methods.

d) **Communication/Liaison competencies:**

- contacts with other departments and clients within the organization;
- contacts outside the organization (e.g. clients, industry organizations, authorities);
- writing skills.

4.1.3 Responsibilities

The following list gives examples of possible responsibilities:

- maintaining liaison with all other departments that use sensory information;
- organization and administration of all department activities;
- planning and development of resources;
- planning and supervising the application of quality policy;
- advising on the feasibility of test requests;
- supervision of testing activities;
- provision of progress reports;

- planning and conducting research on new methods;
- planning and supervising of research activities;
- developing and maintaining standard operating procedures.

4.2 Scientific/Technical position

4.2.1 General

In some organizations, the person who has this function is called “Sensory analyst” or “Panel leader”. However, the position of the panel leader for descriptive analysis is a special case with respect to competencies and responsibilities; detailed information is provided in ISO 13300-2.

4.2.2 Education and position in the company

Such a person should belong to middle management in the organization. Because education in sensory analysis is not standardized today, the background required cannot be completely described, but education in a field of product science (e.g. food science) and/or psychology is desirable. The qualification may be achieved through theoretical knowledge and practical experience used in conjunction with specialized short courses in sensory science.

4.2.3 Competencies

With respect to the different functions, the competencies needed are the following.

a) **Management competencies:**

- organizational and planning capabilities;
- administrative capabilities;
- knowledge of the business and environment.

b) **Scientific and technical competencies:**

- product knowledge;
- technological knowledge;
- science background;
- training in statistics.

c) **Sensorial competencies:**

- theoretical knowledge in the field of sensory analysis;
- knowledge of sensory methodology;
- practical experience as panel leader or panel member;
- capability to plan, carry out and evaluate sensory tests;
- interpretation and reporting of results.

d) Leadership competencies:

- group leadership capabilities;
- good interpersonal communication skills;
- good decision making;
- able to motivate a panel.

Some competencies may require assistance from other trained professionals. For example, designing studies and analysis of data may be handled by other consulting, part time or full time individuals.

It is imperative that the person in a scientific/technical position has basic understanding of areas such as statistics and is able to interpret data based on sound principles.

4.2.4 Responsibilities

The following list gives examples of possible responsibilities:

- carrying out the duties assigned by the sensory manager;
- selection of test procedures, experimental design and analysis;
- coordinating new assessor orientation and screening;
- recruiting, selecting and training of assessors;
- assisting with the planning and development of resources;
- collaborating with others in the organization;
- determining the needs for special panels;
- establishing test schedules;
- supervising all phases of product preparation and testing;
- training subordinates to handle routine assignments;
- analysing data and reporting results;
- preparing articles for publication;
- developing and updating all programme plans;
- planning and conducting research on new methods;
- coordinating new projects.

4.3 Operational position (Panel technician)**4.3.1 General**

These positions are necessary to carry out sensory tests from preparation measures to waste disposal. Special competencies with respect to the educational background may be of interest (e.g. basic chemistry training for safety purposes, knowledge in laboratory methodology to prepare solutions properly).

4.3.2 Competencies

The following competencies are recommended:

- knowledge of the most important sensory tests and how to conduct them;
- sense of responsibility;
- conscientiousness;
- ability to follow detailed instructions;
- attention to detail;
- organization and planning skills;
- prompt and good sense of timing;
- tact;
- ability to maintain good records;
- knowledge of sanitation/hygiene.

4.3.3 Responsibilities

Examples of responsibilities are as follows:

- preparation of the test room;
- preparation/arrangement of the samples to be evaluated;
- coding of the samples;
- notification of assessors to attend and monitor attendance;
- preparation and distribution of the test-sheets;
- taking care of the assessors throughout the tests;
- preparation and implementation of tests;
- data input;
- storage of test and other materials;
- waste disposal.

Table 1 — Indicative list of staff activities and responsibilities

Sensory manager	Sensory analyst/Panel leader	Panel technician
<p>Maintaining liaison with all other departments that use sensory information</p> <p>Organization and administration of all activities of sensory department</p> <p>Advising on feasibility of test request</p> <p>Supervision of testing activities</p> <p>Preparation of progress reports</p> <p>Planning and supervision of research activities</p> <p>Planning and conducting research on new methods</p> <p>Planning and development of resources</p>	<p>Planning and conducting research on new methods</p> <p>Planning and development of resources</p> <p>Carrying out duties as assigned by the sensory manager</p> <p>Selection and training of assessors</p> <p>Recruiting of assessors</p> <p>Selection of test procedures, experimental design, and analysis</p> <p>Determination of the needs of special panels</p> <p>Supervising all phases of product preparation and testing</p> <p>Training subordinates to handle routine assignments</p> <p>Coordinating new subject orientation and screening</p> <p>Responsibility for preparation and reporting of results</p> <p>Establishing test schedules</p> <p>Analysing data for reporting</p> <p>Development and updating of all programme plans</p>	<p>Preparation of the test room</p> <p>Preparation/arrangement of the samples to be evaluated</p> <p>Coding of samples</p> <p>Preparation and distribution of test-sheets</p> <p>Oversee assessors' needs throughout tests</p> <p>Preparation and implementation of tests</p> <p>Data input</p> <p>Preliminary data examination</p> <p>Storage of products, test materials, and other materials needed</p> <p>Waste disposal</p>